



## KARSHYA W.S.R TO MALNUTRITION – A LITERARY REVIEW

**Dr. Anand Prakash<sup>\*1</sup>, Dr. Keerti Verma<sup>2</sup> and Dr. Reena Dixit<sup>3</sup>**

<sup>1</sup>2<sup>nd</sup> Year M.D Scholar, P.G. Department of Kaumarbhritya, Rishikul Campus (UAU).

<sup>2</sup>Prof. H.O.D, P.G Department of Kaumarbhritya, Rishikul Campus (UAU).

<sup>3</sup>Prof. P.G Department of Kaumarbhritya, Rishikul Campus (UAU).



**\*Corresponding Author: Dr. Anand Prakash**

2<sup>nd</sup> Year M.D Scholar, P.G. Department of Kaumarbhritya, Rishikul Campus (UAU).

Article Received on 21/06/2024

Article Revised on 11/07/2024

Article Accepted on 01/08/2024

### ABSTRACT

Food is significant as a nutritional source, as well as having therapeutic value, and it plays an important part in regaining strength lost due to the disease's detrimental effects throughout the post-treatment phase and also excess exercise, or addiction. *Ayurveda* classic haphazardly explains nutritional issues. Every disease is due to faulty *Ahara* and *Vihara*. *Aharavidhi* is equally important for getting optimum benefits from food consumed. Childhood malnutrition is thought to be the cause of 35% of all fatalities in children under the age of five, as well as 21% of total worldwide disability-adjusted life years lost in children. *Karshya* is not only concerned with weight loss but also with malnutrition-like disorders. In *Ayurveda*, *Karshya* is a disease, cause, prodromal symptoms, features of different diseases, and bad prognostic signs. This illness is linked to growth and development issues in children and adolescents group. In adults, malnutrition results in weakness, fatigue, low immune response, protein, vitamin, minerals, fat deficiencies, and more prone to degenerative diseases. This review article aims to highlight the *Ayurvedic* perspective on *Karshya* in terms of malnutrition. All material for this article is collected from classical *Ayurvedic* texts. Understanding the cause and pathophysiology and accurate treatment as per *Ayurveda* classics are all discussed here elaborately.

**KEYWORDS:** *Ahara, Vihara, Karshya, Vataja Prakriti, Ahara vidhi.*

### INTRODUCTION

The twin burden of malnutrition, which affects adult populations in developing nations like India, is characterized by the coexistence of underweight and a growing prevalence of overweight/obesity. The most pervasive health and nutritional issue in poor nations is *Karshya*.

The word 'Krish' is derived from the root 'Krish Tanukarane' with 'Acha Pratyaya'.<sup>[1]</sup> Its literal meaning is to become *Krusha* and thin. It means a condition or disease in which the body of a person becomes emaciated, having less quantity of *Rasa Dhatu* further causing a status of *mam- sahinata* or *mamsakshaya*. According to Acharya Charaka, a lack of sufficient food intake is the main cause of *karshya* (leanness). *Karshya* (Leanness) is described as "*Karshyam Mamsakshayam*" by Acharya Dalhana, which refers to a person's *krusha* and slender physical mentality. *Karshya* (Leanness) and *atikarshya* exhibit all degrees of malnutrition, especially undernutrition ranging from mild to severe.<sup>[2]</sup> *Karshya* (Leanness), which is *vata pradhan vyadhi, bruhan*, and *rasayana*, has been promoted for its management in the classics. *Ayurvedic* nutritional principles suitable to the

current era are essential for management of malnutrition in children. According to *Acharya Charaka*, over-lean (*Karshya*) persons are described under eight despicable persons (*Ashtau-ninditiya*) along with over obese (*Medasvi*) person. An overlean person (*Karshya*) has dried up buttocks, abdomen, neck (*Shushka-sphika, Udar, Greeva*), prominent vascular network (*Dhamanijala santataha*), remnant of skin and bone (*Twagasthi shesho, ati krisha*), and thick nodes (*Sthola parva*)<sup>[3]</sup> According to *Acharya Shushruta*, lean and fattiness of the body depends upon *Rasa-dhatu*<sup>[4]</sup> India is a developing country here poverty, lack of awareness, un- education, population there are so many problems between which many children don't get food every day. They don't have house to live & suffer very much for a meal. Because of this *Karshya* is found commonly in many children.

### MATERIAL AND METHODS

**Nidana:** Not only diet, lifestyle, and psychological issues also play same important as the etiology of *Karshya*. Excessive intake of dry (non-unctuous) diets and drinks (*Ruksha Anna pana*), weight reducing therapy (*Langhana*), intake of food in inadequate quantity (*Pramitashana*), overuse of therapeutic purificatory

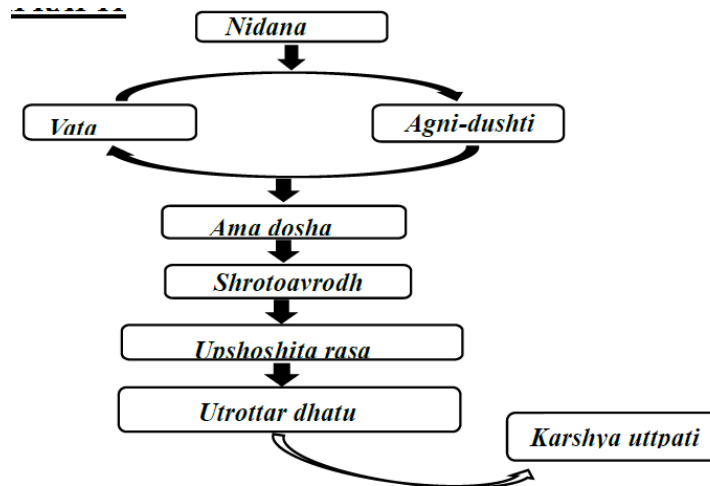
measures (*Kriya* i.e., over use of *Panchakarma* therapy), grief, (*Shoka*) suppression of natural urges (*Vega nigraha*) inadequate sleep or sleep deprivation (*Nidra vega vinigraha*), dry powder massage (*Ruksh*

*udvartanam*), indulgence in baths (*Sanna abhyasa*), hereditary (*Prakriti*) old age (*Jara*) prolonged illness (*Vikara anushaya*) and anger (*Shoka*) make a person *Karshya* (lean).<sup>[5]</sup>

#### Lakshana<sup>[6,7,8,9]</sup>

Lakshana	Acharya Charaka	Acharya Shushruta	Ashtang Sangraha	Acharya Bhavprakash
Sushka Sphika	+	-	+	+
Sushka Udara	+	-	+	+
Sushka Griva	+	-	+	+
amani Jala Darshana	+	-	+	+
Tvaga Asthi Shesha	+		-	+
Vata Roga Prayah	-	+	+	-
Sthula Parva	+	-	+	+

#### SAMPRAPTI



#### Samprapti ghataka

Dosha	Vata Pradhana
Dushya	Rasa, Mamsa, Meda
Agni	Mandagni
Adhishtana	Sarva Sharira
Shrotasa	Rasavaha, Mamsavaha, Medavaha
Shroto Dushti	Sanga
Saadhya - Asaadhyata	Kricha Sadhya

#### CHIKITSA SUTRA (PRINCIPLE OF MANAGEMENT)

1. *Laghu Dravya Santarpan Chikitsa* which means a light and nourishing diet should be administered in *Karshya rogi*.
2. In the chronic state of *Karshya*, the refreshing therapy should be administered slowly depending upon the physical constitution, power of digestion, *Doshas* vitiated, nature of therapy, dose, season, and time of administration. For such patients, meat soup, milk, and ghee of different animals, different types of baths, enemas, massage, and nourishing drinks are useful.

**DEFINITION:** According to WHO definition, "Malnutrition involves a cellular imbalance between supply of nutrients & energy & the body demand for

them to ensure normal growth, maintenance & specific tissue functions.<sup>[10]</sup>

The most common form of malnutrition in children is protein energy malnutrition (PEM).

#### ETIOLOGY<sup>[11]</sup>

- Poverty
- LBW (low birth weight)
- Infections
- Population Growth
- Poor Feeding habits
- High pressure advertising of baby foods.
- Social factors and working parents.

**SYMPTOMS OF MILD/ MODERATE MALNUTRITION**

- Weight loss or not growing or putting on weight at the expected rate (faltering growth).
- Low body fat muscle mass.
- Mood swings, anxiety, irritability, learning issues or loss of clarity.
- Weakness or not active like other same age children.
- Anaemia.
- Bone and Joint pain.

**Protein Energy Malnutrition (PEM)**<sup>[12]</sup> The World Health Organization (WHO) defines PEM as range of pathological condition arising from co-incidental lack in varying proportion of protein and calories, occurring most frequent in infants and young children, and commonly associated with infection.

**Aetiology of Protein Energy Malnutrition**

Primary PEM: Primarily due to dietary deficiency.  
Secondary PEM:- As an effect of some other illness.

**CLINICAL CLASSIFICATION**<sup>[13]</sup>

**Based on the relative contribution of protein and energy diet.**

- **Kwashiorkor:** Gross deficiency of proteins with an associated energy inadequacy.

Grade I	90-75% of expected weight (Harvard St.)
Grade II	75-60% of expected weight (Harvard St.)
Grade III	<60% of expected weight (Harvard St.)

**Bengoa's Modification of Gomez Classification:** Any malnourished child with edema is considered in Grade III irrespective of weight.

**D.B. Jelliffe's Classification**

Nutrition status (PEM)	Weight for age (Harvard) % of expected
Normal	>90
First Degree	80-90
Second Degree	70-80
Third Degree	60-70
Fourth Degree	<60

**Indian Academy of Paediatrics Classification**

Grade I	70-80% of expected weight (Mild malnutrition)
Grade II	60-70% of expected weight (Moderate malnutrition)
Grade III	50-60% of expected weight (Severe malnutrition)
Grade IV	<50% of expected weight (Very severe malnutrition)

**IAP classification of malnutrition is based on weight for age values**

Grade of malnutrition	Weight-for-age of standard (%)
Normal	> 80
Grade 1	70-80 (mild malnutrition)
Grade 2	60-70 (moderate malnutrition)
Grade 3	50-60 (severe malnutrition)
Grade 4	< 50 (very severe malnutrition)

- **Marasmus:** Gross deficiency of energy, though protein deficiency also accompanies.

- **Marasmus Kwashiorkor:** Overlap of clinical picture of kwashiorkor and marasmus.

- **Pre-Kwashiorkor:** Affected children have poor nutritional status and certain features of kwashiorkor but do not have edema.

- **Nutritional Dwarfism:** Prolonged PEM starting fairly early in life & going on over a number of years in life without developing kwashiorkor or marasmus result in nutritional dwarfism.

- **Under Weight:** The child is malnourished, but does not have any feature of marasmus and kwashiorkor. The weight for age is 60-80% of the expected.

- **Invisible PEM:** Not commonly seen. Toddlers who show breast addiction must be suspected to have invisible Protein energy malnutrition (PEM).

**ANTHROPOMETRICAL CLASSIFICATION**

**Gomez's Classification:** It was the first classification of Protein energy malnutrition (PEM) which came in 1956.

**SCHEDULE FOR MEALS<sup>[14]</sup>**

**Children of < 2 years:** Minimum 3 complimentary food along with breastfeeding.

**Children of 2 – 10 years:** Minimum 4 meals (2 main meals and 2 snacks on demand) **Recommendation for Prevention of Malnutrition<sup>[15]</sup>**

- Mothers should be advised to initiate breastfeeding within one hour of delivery.
- Importance of exclusive breast feeding for the first 6 months of baby's life and proper weaning thereafter should be properly explained to mother.
- Nutritional education has to be imparted to the people regarding the consumption of cost-effective nutritious diet.
- Special efforts have to be made to improve acceptance of family planning methods for limiting the family and to give adequate spacing between children.
- Environmental sanitation has to be promoted in reducing infection and breaking the vicious cycle of infection leading to undernutrition.
- Socio-economic development among the rural masses needs to be ensured which is the important factor in tackling malnutrition, mainly under-nutrition.
- Government should allot more money in the health sector for integrated health packages and should ensure the proper functioning of health programs.

**Current Guidelines for prevention of Malnutrition<sup>[16]</sup>:**

Care of nutritional needs is required at three stages; Nutrition during pregnancy, nutrition in infancy and nutrition in childhood. Fetal nutrition is totally dependent on maternal nutrition. In fact, intra uterine growth retardation (IUGR) may be due to maternal deprivation and or diseases in pregnancy. Infant nutrition should be through exclusive breast feeding up to 6 months, to meet the nutritional demands and to prevent morbidity. Following period is complemented with other foods along with breast feeding to meet the growing needs of the infant. Diet in children needs equal emphasis on both quality and quantity. Toddler needs more than half the portion of food that mother eats. The diet of pre-school children needs special attention to vitamins and minerals varieties; while school going children need 3/4th of food that father eats. Children should not miss meals, especially breakfast.

**DISCUSSION AND CONCLUSION**

A thorough literary review reveals that in ancient classics *Karshya* has been categorized as an undesirable sociological condition. In these diseases constitutional features of an individual are altered. In Charak Samhita, the disease of *Karshya* is described in view of nutritional deficiency. As Charak considered this condition as an undesirable phenomenon, hence the line of treatment and principle of management is advised because *Karshya* become susceptible to many other systemic diseases, like, *Pleeha*, *Kasa*, *Kshaya*, *Swasa*, *Gulma*, *Arsha*, *Udara*, *Grahani*. Sushruta has also considered *Karshya*

as a clinical state of undernutrition. The role of *rasa* in the genesis of *Karshya* has been described. This sequence of chronological *Dhatukshaya*, *Ojakshaya*, and *Balakshaya* is emphasized. In Astanga, Hridaya *Karshya* is mentioned as an adverse effect of *Langana*. Following Sushruta, administration of *Brimhan* therapy is also advised in Astanga Hridaya. In Kashyap Samhita *Karshya* is included in *Vataja Roga*. In the treatment schedule, *Brimhan* therapy is highlighted. In MadhavNidan separate chapter regarding *Karshya* is not found, but the state of *Karshya* holds its great clinical importance almost in every aspect during a description of various systemic diseases. So *Karshya* in Madhav Nidana is described as *Roga Lakshana* rather than individual *Roga*.

*Karshya* is a disease caused by nutritional deficiencies in which the body gets emaciated gradually. Mainly the gluteal region, abdomen, and neck show gross bulk muscle loss and subcutaneous fat depletion. This condition is correlated with nutrition. The description of *Karshya* as a disease along with its diagnosis and treatment are available in classical text of Ayurveda. A systemic study of these conditions provide insight in to hazards of nutritional deficiency. And represents different aspects of nutritional deficiency and a proper understanding of the pathogenesis of condition provide valuable keys for effective management.

**REFERENCES**

1. Shukla Vidyadhar, Tripathi Ravidatt, Agnives Charak Samhita (Vaidyamanorama Commentary), Vol – 1, Varanasi, Chaukhamba Sanskrit Pratisthan, 2010; 412.
2. Bhavprakash Uttardha vidyotini namik bhash tikaya sanvalit -Shri.Haridas Prasad Pandeyn, Chaukhamba Sanskrit sansthan Varanasi.
3. *Charkha Samhita Savimarsh Vidhyotani Hindivyakhyopeta Pratham* Bhaag by Kashinath Shastri & Dr Gorakhnath Chaturvedi Chaukhamba Bharti Academy Varanasi, 2014.
4. *Sushruta Samhita with Ayurveda Tatvasandeeepika* part 1 Hindi commentary by Kaviraj Ambikadutt Shastri, *Chaukhamba Sanskrit* series, Varanasi edition reprint, 2016.
5. Khushwaha HC, Charaka Samhita (Hindi). volume-1, Varanasi, Chaukhamba Orientalia, sutrasthana-21\3, 309.
6. *Charkha Samhita Savimarsh Vidhyotani Hindivyakhyopeta Pratham* Bhaag by Kashinath Shastri & Dr Gorakhnath Chaturvedi Chaukhamba Bharti academy Varanasi, 2014; Sutra 21/15.
7. *Sushruta Samhita with Ayurveda Tatvasandeeepika* part 1 Hindi commentary by Kaviraj Ambikadutt Shastri, *Chaukhamba Sanskrit* series, Varanasi edition reprint, 2016; Sutra 15/69.
8. *Astangsangraha of Vridh Vagbhatta* with *Shashilekha Sanskrit* commentary by Indu Sutra, 24/49-50.
9. Bhavprakash Nighantu *Chaukhamba Bharti* Academy

- Varanasi, Dr. K.C. Chunekar, edited by Dr. G.S. Pandey, *Uttrardha Chikitsa Prakrana* chapter, 2004; 40/399-400.
10. <http://www.reseachgate.net/publication/272159339>.  
Review on *Karshya* (Nutritional disorder in Ayurveda) and Malnutrition, Authors:- Pravin Masram, Virendra Kumar Kori, Ks Patel, Rajagopala Shrikrishna, Article date- 7 june, 2015.
  11. Pediatrics, Revised second edition year 2005, Medknow publication, 96.
  12. <https://main.ayush.gov.in> Home care guidelines for children and advisory for AYUSH Practitioners about prophylactic care in Children during the COVID-19 Pandemic, government of India Ministry Of Ayush.
  13. Vijayshree Prasad, Shiv Prasad S, malnutrition, A daunting problem for India's spectacular growth. *Asian journal of pediatrics*, 2012; 16(1).
  14. Kulkarni Reena, An Integrated Approach On Child Nutrition, *Journal of Ayurveda and Holistic Medicine*, May, 2013; 1(2).
  15. Shri Govind Das Virachita Bhaishajya Ratnawali, commentary by Kaviraja Shri Ambikadutta Shastri Ayurvedacharya, Chaukhamba Sanskrita Sansthan, Varanasi, Eighteenth Edition, Chapter- 71, 1084.
  16. Bhavprakash Nighantu *Chaukhamba Bharti Academy Varanasi*, Dr. K.C. Chunekar, edited by Dr. G.S. Pandey, *Guduchyadi varg, Go dughda, Go ghrita*, 2004.